Amendments to the Claims

1. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ comprising a set of cells ~~(10)~~, each cell ~~(11, 13, 15, 19)~~ comprising an electrical device ~~(20)~~ having a device parameter with a parameter value which is a function of random parametric variations, the set of cells ~~(10)~~ comprising:

- a first subset ~~(12)~~ of identification cells ~~(13)~~; and
- a second subset ~~(14)~~ of cells ~~(11, 15,19)~~ for generating an identification code by measuring the parameter values of the identification cells ~~(13)~~, characterized in that the identification cells ~~(13)~~ have first random parametric variations and the cells ~~(11, 15, 19)~~ of the second subset ~~(14)~~ have second random parametric variations, the first random parametric variations being larger than the second random parametric variations.

2. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 1, characterized in that

- the first random parametric variations cause random differences among the parameter values of the identification cells ~~(13)~~, the random differences each having an absolute value, the absolute values having an average value; and
- the second random parametric variations cause an offset in the parameter values of the identification cells ~~(13)~~, the offset having an absolute value, the average value being larger than the absolute value of the offset.

3. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 2, characterized in that the identification cells ~~(13)~~ each contain only one electrical device (20).

4. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 1, characterized in that the random parametric variations comprise a random distribution of doping atoms ~~(28)~~ in at least a part of the electrical device ~~(20)~~.

5. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 4, characterized in that the electrical device ~~(20)~~ comprises a metal oxide

semiconductor field effect transistor ~~(22)~~ comprising a source ~~(23)~~, a drain ~~(24)~~, a gate ~~(25)~~, and a channel ~~(26)~~, which is situated between the source ~~(23)~~, the drain ~~(24)~~ and the gate ~~(25)~~, the channel ~~(26)~~ being electrically insulated from the gate ~~(25)~~ by an oxide ~~(27)~~, the part of the electrical device ~~(20)~~ having the random distribution of doping atoms comprising the channel ~~(26)~~.

6. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 1, characterized in that the electrical device ~~(20)~~ comprises an ohmic resistor having a resistance value, which is a function of the random parametric variations.

7. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 6, characterized in that the ohmic resistor comprises a silicide material and has a shape, the random parametric variations comprising a random distribution of shapes.

8. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 6, characterized in that the random parametric variations comprise a random distribution of insulating objects ~~(49)~~ in the ohmic resistor.

9. (CURRENTLY AMENDED) An integrated circuit ~~(1)~~ as claimed in Claim 8, characterized in that the first subset ~~(12)~~ comprises a random number of identification cells ~~(13)~~ each having ohmic resistors comprising a first part ~~(50)~~ and a second part ~~(51)~~, which is electrically insulated from the first part by the insulating objects ~~(49)~~.

10. (CURRENTLY AMENDED) A method for manufacturing an integrated circuit ~~(1)~~ as claimed in Claim 1, the integrated circuit ~~(1)~~ comprising a substrate ~~(2)~~ and a set of cells ~~(10)~~, each cell ~~(11, 13, 15, 19)~~ comprising an electrical device ~~(20)~~ having a device parameter with a parameter value which is a function of random parametric variations, the substrate ~~(2)~~ comprising a first portion ~~(3)~~ and a second portion ~~(4)~~, the method comprising a step which causes the cells ~~(11, 13, 15, 19)~~ to have the random parametric variations, characterized in that means for increasing the random parametric variations in at least a part of the first portion ~~(3)~~ with respect to

the random parametric variations in the second portion ~~(4)~~ are applied during at least part of the execution of said step.

11. (CURRENTLY AMENDED) A method as claimed in Claim 10, characterized in that during at least a part of the step of applying the means for increasing the random parametric variations the second portion ~~(4)~~ is covered by a first mask ~~(5)~~ which at least partly prevents an increase of the random parametric variations in the second portion (4).

12. (CURRENTLY AMENDED) A method as claimed in Claim 11, characterized in that the step causing random parametric variations comprises a sub-step causing random parametric variations in at least a part of the second portion ~~(4)~~ while the first portion ~~(3)~~ is covered by a second mask ~~(6)~~ which at least partly prevents introducing the random parametric variations in the first portion ~~(3)~~ during the sub-step.

13. (CURRENTLY AMENDED) A method as claimed in Claim 10, characterized in that the step causing the random parametric variations comprises implanting doping atoms ~~(28)~~.

14. (CURRENTLY AMENDED) A method as claimed in Claim 13, characterized in that the means for increasing the random parametric variations comprise objects ~~(31)~~ randomly distributed over at least a part of the first portion ~~(3)~~, the objects ~~(31)~~ at least partly preventing doping atoms ~~(28)~~ from being implanted.

15. (CURRENTLY AMENDED) A method as claimed in Claim 13, characterized in that at least a part of the doping atoms ~~(28)~~ carry a charge when they are implanted and a deflection unit ~~(41)~~ randomly deflecting the charged doping atoms by applying a random deflection signal is used as the means for increasing the random parametric variations.